

Title (en)

Process for manufacturing a bolt shaped high precision body, bolt shaped body and manufacturing apparatus thereof

Title (de)

Verfahren zur Herstellung eines hochpräzisen bolzenförmigen Elements, ein bolzenförmiges Element sowie eine Vorrichtung zur Herstellung des Elements

Title (fr)

Procédé de fabrication d'un élément de haute précision en forme de boulon, élément en forme de boulon et appareil pour sa fabrication

Publication

EP 1710028 A1 20061011 (DE)

Application

EP 06007393 A 20060407

Priority

DE 102005016528 A 20050408

Abstract (en)

The method is a heat deformation process using a swaging machine by which a stamp (6) with a high stamping speed of around 6000 mm per second is moved against a metal pin (12) situated in and shaped by a bottom die (8). In the reshaping head area the metal pin is heated exclusively for this purpose to a temperature of between 600 to 900[deg] C. A drop hammer (20) is used to produce the stamping speed using gravitational acceleration. A working deformation results which transmits kinetic energy using the stamp onto the metal pin, corresponding to the necessary energy for the deformation process.

IPC 8 full level

B21K 1/46 (2006.01); **B21J 9/08** (2006.01)

CPC (source: EP)

B21J 9/08 (2013.01); **B21K 1/46** (2013.01)

Citation (search report)

- [X] FR 1365180 A 19640626
- [AD] DE 1627688 A1 19700514 - MAREZZA GENOVEFFA
- [AD] US 4023225 A 19770517 - TOCHILKIN ANATOLY ANDREEVICH, et al
- [AD] DE 3505251 A1 19860821 - BUENDGENS MASCHINEN VERWALTUNG [DE]
- [AD] DE 4109407 A1 19920924 - LANGSCHWAGER INGO [DE]

Cited by

CN101954437A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1710028 A1 20061011; DE 102005016528 A1 20061012

DOCDB simple family (application)

EP 06007393 A 20060407; DE 102005016528 A 20050408